

Fermi-LAT Gamma-ray Bursts and Insights from Swift

A new revolution in Gamma-ray Burst (GRB) observations and theory has begun over the last two years since the launch of the Fermi Gamma-ray Space Telescope. The new window into high energy gamma-rays opened by the Fermi-Large Area Telescope (LAT) is providing insight into prompt emission mechanisms and possibly also afterglow physics. The LAT detected GRBs appear to be a new unique subset of extremely energetic and bright bursts compared to the large sample detected by Swift over the last 6 years. In this talk, I will discuss the context and recent discoveries from these LAT GRBs and the large database of broadband observations collected by the Swift X-ray Telescope (XRT) and UV/ Optical Telescope (UVOT). Through comparisons between the GRBs detected by Swift-BAT, GBM, and LAT, we can learn about the unique characteristics, physical differences, and the relationships between each population. These population characteristics provide insight into the different physical parameters that contribute to the diversity of observational GRB properties.